

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

PPLICATION NO	, Fl	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION N	
10/072,143	(02/06/2002	Mitsuaki Ooyama	2933AS-5	1436	
22442	7590	01/29/2003				
	AN ROSS	PC	EXAMINER			
1560 BROADWAY SUITE 1200 DENVER, CO 80202				LAM, T	LAM, THANH	
DENVER,	CO 80202			ART UNIT	PAPER NUMBER	
				2834		
				DATE MAIL ED: 01/20/2003		

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 10/072,143

Applicant(s)

Mitsuaki

Examiner

Thanh Lam

Art Unit **2834**



	Illami Cam	2034					
The MAILING DATE of this communication appears	on the cover sheet with the corres	pondence address					
Period for Reply							
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET THE MAILING DATE OF THIS COMMUNICATION.							
 Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In mailing date of this communication. If the period for reply specified above is less than thirty (30) days, a reply within the If NO period for reply is specified above, the maximum statutory period will apply a Failure to reply within the set or extended period for reply will, by statute, cause the Any reply received by the Office later than three months after the mailing date of the earned patent term adjustment. See 37 CFR 1.704(b). 	he statutory minimum of thirty (30) days will be and will expire SIX (6) MONTHS from the mailin he application to become ABANDONED (35 U.S	o considered timely. g date of this communication. .C. § 133).					
Status							
1) Responsive to communication(s) filed on		•					
2a) ☐ This action is FINAL . 2b) ☑ This act							
3) Since this application is in condition for allowance e closed in accordance with the practice under Ex pa							
Disposition of Claims							
4) 💢 Claim(s) <u>1-22</u>	is/are	pending in the application.					
4a) Of the above, claim(s)	is/are	e withdrawn from consideration.					
5) Claim(s)		is/are allowed.					
6) 💢 Claim(s) <u>1-22</u>		is/are rejected.					
7) Claim(s)		is/are objected to.					
8) Claims	are subject to restric	tion and/or election requirement.					
Application Papers							
9) \square The specification is objected to by the Examiner.							
10) The drawing(s) filed on is/are	a) accepted or b) objecte	d to by the Examiner.					
Applicant may not request that any objection to the d							
11) The proposed drawing correction filed on	is: a) approved	b) \square disapproved by the Examiner.					
If approved, corrected drawings are required in reply							
12) \square The oath or declaration is objected to by the Exami	iner.						
Priority under 35 U.S.C. §§ 119 and 120							
13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).							
a) ☐ All b) ☐ Some* c) ☒ None of:							
1. Certified copies of the priority documents have							
2. Carified copies of the priority documents hav							
3. Copies of the certified copies of the priority description application from the International Bure *See the attached detailed Office action for a list of the strategies.	au (PCT Rule 17.2(a)).	this National Stage					
14) Acknowledgement is made of a claim for domestic	·	e).					
a) The translation of the foreign language provisiona		o,.					
15) Acknowledgement is made of a claim for domestic) and/or 121.					
Attachment(s)							
1) X Notice of References Cited (PTO-892)	4) Interview Summary (PTO-413) Paper N	do(s)					
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) Notice of Informal Patent Application (PTO-152)					
3) X Information Disclosure Statement(s) (PTO-1449) Paper No(s).	6) Other:						

Art Unit: 2834

DETAILED ACTION

Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani et al.in view of Fushiya et al.

Mizutani et al. disclose a motor comprising:a motor housing;an armature having a rotating shaft and a commutator, the armature being rotatably supported in the motor housing; brushes brought into friction contact with the commutator; brush holders for holding the brushes respectively; a base plate to which the brush holders are attached; the base plate having a first side and a second side, the second side being opposite to the first side; and a plurality of electric parts to be mounted on the base plate; the electric parts being allocated to the first side.

Mizutani et al. do not disclose electric parts being allocated to the the second side of the base plate.

Fushiya et al.disclose the base plate (17) having a first side and a second side, the second side being opposite to the first side; and a plurality of electric parts (13,20,23) to be mounted on the base plate; the electric parts being allocated to the first side.

Application/Control Number: 10072143

Art Unit: 2834

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the plate as taught by Mizutani et al.to commodate the plate of Fushiya et al. in order to reduce the size the the motor.

Regarding claim 2, the proposal in combination of Mizutani et al. and Fushiya et al. disclose the plurality of electric parts have longitudinal axes respectively and are arranged such that these axes are parallel to the axis of the rotating shaft.

Regarding claim 3, the proposal in combination of Mizutani et al. and Fushiya et al. disclose at least one of the electric parts arranged on the first side of the base plate is oriented such that the longitudinal axis thereof is parallel to the axis of the rotating shaft, whereas at least one of the electric parts arranged on the second side of the base plate is oriented such that the longitudinal axis thereof is parallel to the base plate.

Regarding claim 4, the proposal in combination of Mizutani et al. and Fushiya et al. disclose the base plate is fixed to the motor housing on the central line thereof intersecting perpendicularly to the axis of the rotating shaft, the electric parts being arranged to form symmetry with respect to the central line.

Regarding claim 5, the proposal in combination of Mizutani et al. and Fushiya et al. disclose the electric parts include choke coils and a circuit breaker.

Regarding claim 6, the proposal in combination of Mizutani et al. and Fushiya et al. disclose the circuit breaker has a terminal plate for securing electrical connection, the terminal

Application/Control Number: 10072143 Page 4

Art Unit: 2834

plate being located adjacent to one of the choke coils and having a heat receiving portion for receiving heat generated in the choke coil.

Regarding claim 7, the proposal in combination of Mizutani et al. and Fushiya et al. disclose a motor comprising: a motor housing; an armature having a rotating shaft and a commutator, the armature being rotatably supported in the motor housing; brushes brought into friction contact with the commutator; brush holders for holding the brushes respectively; a base plate to which the brush holders are attached; a plurality of electric parts to be mounted on the base plate, the electric parts having longitudinal axes respectively; and a plurality of part holders for holding the electric parts respectively, the part holders being attached to the base plate with the electric parts being positioned such that the longitudinal axes thereof extend parallel to the axis of the rotating shaft.

Regarding claim 8, the proposal in combination of Mizutani et al. and Fushiya et al. disclose the part holders are removably attached to the base plate.

Regarding claim 9, the proposal in combination of Mizutani et al. and Fushiya et al. disclose the base plate is fixed to the motor housing on the central line thereof intersecting perpendicularly to the axis of the rotating shaft, the electric parts being arranged to form substantially symmetry with respect to the central line of the base plate.

Regarding claim 10, the proposal in combination of Mizutani et al. and Fushiya et al. disclose the plurality of part holders comprise a first part holder and a second part holder.

Art Unit: 2834

Regarding claim 11, the proposal in combination of Mizutani et al. and Fushiya et al. disclose the electric parts comprise three choke coils and a single circuit breaker, the first part holder holding two of the three choke coils, whereas the second part holder holding one of the three choke coils and the single circuit breaker.

Regarding claim 12, the proposal in combination of Mizutani et al. and Fushiya et al. disclose the base plate has a first side and a second side, the first part holder and the second part holder being located on the first side and on the second side of the base plate, respectively.

Regarding claim 13, the proposal in combination of Mizutani et al. and Fushiya et al. disclose each part holder has a holding piece for holding a joint of the electric part held in the holder.

Regarding claim 14, the proposal in combination of Mizutani et al. and Fushiya et al. disclose the motor housing comprises a yoke housing and a gear housing, the yoke housing supporting rotatably the armature, whereas the gear housing containing a decelerating mechanism for decelerating revolution of the rotating shaft and outputting the decelerated revolution.

Regarding claim 15, the proposal in combination of Mizutani et al. and Fushiya et al. disclose a motor comprising: a motor housing containing a yoke housing and a gear housing; an armature having a rotating shaft and a commutator, the armature being rotatably supported in the yoke housing; a decelerating mechanism for decelerating revolution of the rotating shaft and outputting the decelerated revolution, the mechanism being located in the gear housing; a

baseplate interposed between the yoke housing and the gear housing; brushes brought into friction contact with the commutator; brush holders for holding the brushes respectively, which

are attached to the base plate; and a plurality of electric parts to be mounted on the base plate; the gear housing having a mounting portion for mounting the motor to other apparatuses and a receiving portion for receiving at least a part of the electric part, the receiving portion being located between the rotating shaft and the mounting portion.

Regarding claim 16, the proposal in combination of Mizutani et al. and Fushiya et al. disclose the receiving portion is located within the profile of the yoke housing.

Regarding claim 17, the proposal in combination of Mizutani et al. and Fushiya et al. disclose the decelerating mechanism has an output shaft extended orthogonal to the rotating shaft; the receiving portion being located between the output shaft and the yoke housing along the axis of the rotating shaft

Regarding claim 18, the proposal in combination of Mizutani et al. and Fushiya et al. disclose a motor comprising: a motor housing; an armature having a rotating shaft and a commutator, the armature being rotatably supported in the motor housing; brushes brought into friction contact with the commutator; brush holders for holding the brushes respectively; a base plate to which the brush holders are attached; thebase plate having a first side and a second side; and a plurality of electric parts to be mounted on the base plate, the electric parts being allocated to the first side and the second side of the base plate, at least one of the electric parts allocated to

Application/Control Number: 10072143

Art Unit: 2834

the first side and at least one of the electric parts allocated to the second side extend in opposite directions with respect to each other.

Page 7

Regarding claim 19, the proposal in combination of Mizutani et al. and Fushiya et al. disclose a first part holder and a second part holder, the first part holder holding at least one of the electric parts allocated to the first side, whereas the second part holder holding at least one of the electric parts allocated to the second side.

Regarding claim 20, the proposal in combination of Mizutani et al. and Fushiya et al. disclose the electric parts held by the first part holder comprise a pair of choke coils, whereas the electric parts held by the second part holder comprise a choke coil and a circuit breaker.

Regarding claim 21, the proposal in combination of Mizutani et al. and Fushiya et al. disclose the electric parts have axes extending parallel to the axis of the rotating shaft, respectively.

Regarding claim 22, the proposal in combination of Mizutani et al. and Fushiya et al. disclose each part holder is provided with a holding piece for holding a joint of the electric part held in the holder.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Lam whose telephone number is (703) 308-7626. The fax phone number for this Group is (703) 305-3432.

Art Unit: 2834

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0656.

Thanh Lam

Patent Examiner

Wanh Cam